

THE CALLS OF SPIDERS.

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DURING the months of April and May, there is a certain spider, namely *Lycosa kochii* (of the family *Lycosidae*), which is very abundant in our oak woods. On a warm, sunny day at this time of year, if you watch the male of this species, you will notice that he is earnestly engaged in something that occupies his entire attention. He runs a little distance, then stops, moves on again, and again pauses a moment, generally on the surface leaves; and thus he continues, often covering many yards in an hour or two. If the air is very still a certain clicking or purring will be heard every time the spider rests. Since this operation has, I believe, never been fully described before, it may not be out of place to give an account of it here.

The sound is made by the male's tapping or drumming upon the dry leaves with the tips of his palps. It is very similar to the low stridulation of a cricket when it is beginning to chirp. The sound is continuous while it lasts, but varies in quality and loudness. It consists of, first, a steady, but extremely faint purring, which seems to be produced by very rapid and very short strokes of the palps. Then the sound grows rather louder, but is still so low that the ear must be less than a foot distant in order to hear it. Lastly, the whole concludes with a much sharper purr or click, varying according to the number of times the palps strike the leaf. Sometimes only the first, or the first and second portions are produced on the same leaf, sometimes all. The last part is nearly always accompanied by an up-and-down motion of the abdomen. This at first misled me to believe that the abdomen was the only instrument employed, but, although this frequently even touches the leaf, the palps are, nevertheless, the principal organs. Of this fact I am fully convinced in reference to the last portion of the sound. I have seen the performance at close range with a lens. The palps are curved to form an arc of perhaps 60 to 72 degrees. They are moved up and down like a hammer and strike the leaf directly downwards. It is the blow of their horny tips which causes the sound. As nearly as I could make out, they are used together, not alternately. They are not scraped or drawn across the surface of the leaf. In the preceding description the terms "click" and "purr" have been employed merely to indicate the frequency of the impact, not at all the method or means of producing it.

Although personally I am of the opinion that these are sexual calls, I shall let the subject rest here until further researches have been carried out. I shall be very much obliged to any person who sends me additional information in regard to this matter.